

REMARKS/ARGUMENTS

The Applicant has carefully considered this application in connection with the Examiner's Action and respectfully requests reconsideration of this application in view of the foregoing amendment and the following remarks.

The Applicant originally submitted Claims 1-20 in the application. The Applicant has not amended, canceled or added any claims. Accordingly, Claims 1-20 are currently pending in the application.

I. Formal Matters and Objections

The Examiner objected to the specification because of an informality. The Examiner required patent application numbers be provided to fill in certain blanks on page 14 of the specification. Paragraph 32 of the specification has been amended to provide such numbers. The Applicant requests the Examiner to withdraw this objection.

II. Rejection of Claims 1-3 and 11-13 under 35 U.S.C. §102

The Examiner has rejected Claims 1-3 and 11-13 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,684,871 to Devon *et al.* (Devon). As the Examiner is no doubt aware, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference; the disclosed elements must either be disclosed expressly or inherently and must be arranged as in the rejected claims.

Devon describes a system for encoding symbols based on the position of a signal characteristic, such as frequency, amplitude or phase, within a pulse position modulation frame.

(Col. 2, lines 53-63) The location of the signal characteristic in the pulse position frame of time slots or spaces is used to encode a data symbol. The sync pulse signal transmitted at the start of each frame does not encode data. The sync pulse identifies the start of the frame or group of slots within which the data bearing signal characteristic is located. The data is then decoded using prior art pulse position modulation techniques. Devon describes a system that uses only one slot out of a frame of slots to encode data.

Devon does not disclose encoding data with multiple pulses assigned to a larger number of time slots. Devon provide for a single data pulse transmitted after a sync pulse. This data pulse can be placed in one of a multiple number of time slots, but even if the sync pulse is considered to carry information by virtue of having one of several different signal characteristics, the sync pulse will always occurs in the first slot of a pulse position modulation group of pulses or frame. Thus, because Devon only provides for one signal characteristic per group of pulses, it does not anticipate encoding data using multiple pulses distributed among a group of time slots.

Therefore, Devon does not disclose each and every element of the claimed invention and as such, is not an anticipating reference for independent Claims 1 and 11. Because Claims 2 and 3 are dependent on Claim 1 and Claims 12 and 13 are dependent upon Claim 11, Devon also cannot be an anticipating reference for Claims 2, 3, 12 and 13. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to these Claims.

III. Rejection of Claims 4-10 and 14-20 under 35 U.S.C. §103

The Examiner rejected Claims 4-10 and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Devon. As the Examiner is no doubt aware, determination of obviousness

requires consideration of the invention considered as a whole; the inquiry is not whether each element exists in the prior art, but whether the prior art made obvious the invention as a whole. Furthermore, there must be some suggestion or teaching in the art that would motivate one of ordinary skill in the art to arrive at the claimed invention; a reference that teaches away from a claimed invention strongly indicates nonobviousness.

Moreover, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure.

As explained above, Devon does not disclose encoding a data element using multiple pulses distributed among a group of time slots. Devon provides for a single data pulse transmitted after a non-varying sync pulse. Thus, because Devon only provides for one signal characteristic per group of pulses, it does not teach or suggest that multiple pulses can be distributed among a group of time slots.

Devon fails to teach or suggest the invention recited in independent Claims 1 and 11 and their dependent claims, when considered as a whole. Claims 4-10 and 14-20 are therefore not obvious in view of Devon.

In view of the foregoing remarks, the cited references do not support the Examiner's rejection of Claims 4-10 and 14-20 under 35 U.S.C. §103(a). The Applicant therefore respectfully requests the Examiner to withdraw the rejection.

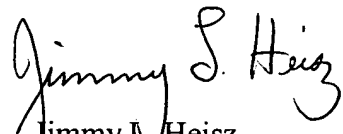
IV. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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